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08/336, 335 11/09/94 ELLIS

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EXAMINER

HANSEN, K

C2M1/1002

ART UNIT

PAPER NUMBER

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TULSA OK 74119

3206

DATE MAILED:

10/02/95

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined  Responsive to communication filed on \_\_\_\_\_  This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

1.  Notice of References Cited by Examiner, PTO-892.
2.  Notice of Draftsman's Patent Drawing Review, PTO-948.
3.  Notice of Art Cited by Applicant, PTO-1449.
4.  Notice of Informal Patent Application, PTO-152.
5.  Information on How to Effect Drawing Changes, PTO-1474.
6.  \_\_\_\_\_

**Part II SUMMARY OF ACTION**

1.  Claims \_\_\_\_\_ are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2.  Claims \_\_\_\_\_ have been cancelled.

3.  Claims \_\_\_\_\_ are allowed.

4.  Claims 1 - 3 are rejected.

5.  Claims \_\_\_\_\_ are objected to.

6.  Claims \_\_\_\_\_ are subject to restriction or election requirement.

7.  This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8.  Formal drawings are required in response to this Office action.

9.  The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are  acceptable;  not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10.  The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been  approved by the examiner;  disapproved by the examiner (see explanation).

11.  The proposed drawing correction, filed \_\_\_\_\_, has been  approved;  disapproved (see explanation).

12.  Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has  been received  not been received  been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13.  Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14.  Other

**EXAMINER'S ACTION**

***Claim Rejections - 35 USC § 112***

1. Claims 3 and 6 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 is unclear because it is inconsistent to compare an amplitude to an infeed rate since an amplitude is generally expressed as a displacement, and a nominal infeed rate is generally expressed as a displacement/time or displacement/revolution. In claim 6, line 1, "computer" lacks antecedent. (Suggest, "computer means".) Claim 6 is indefinite for not further limiting the machine, since it is merely reciting an outcome of the lathing operation.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention

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were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

3. Claims 1, 2, and 6 are rejected under 35 U.S.C. § 103 as being unpatentable over Medeksza in view of Applicant's Admitted Prior Art (AAPA), as discussed on page 6 of the specification and shown in fig. 1.

Medeksza teaches means for reciprocating a tool at an oscillatory rate relative to a rotating workpiece along the tool feed (transverse) direction to form intermittent chips dependent on factors such as tool position and angular displacement of the workpiece. Medeksza, however, does not teach reciprocating the workpiece along the transverse direction. AAPA teaches a machine for lathing in accordance with the present invention including both a first and second carriages, means for guiding the carriages, and computer means for coordinating the workpiece rotational motion, the workpiece reciprocal motion (along a Y-axis as illustrated), and the lathing means reciprocal motion (along an X-axis) to infeed a workpiece along a transverse direction to lathe the workpiece to a predetermined shape, (as clearly shown in fig. 1). It would have been obvious to one of ordinary skill in the art, at the time of invention, to have modified Medeksza by providing means for reciprocating oscillation of a workpiece, as suggested by AAPA, since AAPA

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clearly discloses means to effect such motion (17 and 19 in fig 1) in order to form chip segments that are readily disposable.

As to claim 2, see Medeksza fig.'s 2 & 3.

4. Claims 3-5, 7, and 8 are rejected under 35 U.S.C. § 103 as being unpatentable over Medeksza and AAPA, as applied to claim 1 above, and further in view of Dombrowski et al.

Medeksza and AAPA do not expressly recite the sine wave motion having an amplitude equal to one-half the feed rate.

Dombrowski et al. does in col. 1, lines 57-60. It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the operation of Medeksza and AAPA with the particular sine wave motion of Dombrowski et al. in order to provide for adequate chip separation.

The sinusoidal relationship recited in claims 4 and 5 would be a natural extension of the theories taught by either Medeksza or Dombrowski et al. As to claim 7, see Dombrowski et al. fig. 5, I.

5. Prior art made of record but not relied upon is considered pertinent to applicant's disclosure.

Yen et al. 5,291,812 is cited to show sinusoidal oscillatory motion as shown in fig. 2.

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JP 140701 is cited to show the state of the art in  
oscillatory cutting motion.

Any inquiry concerning this communication or earlier  
communications from the examiner should be directed to Kenneth J.  
Hansen whose telephone number is (703) 308-2477.

Group FAX number is (703) 305-3579. Any transmission which  
applicant does not want to be considered as an Official Response  
should clearly be marked as "DRAFT".

*pkh*

KJH

September 26, 1995

*Mark Rosenberg*  
SPE 3206